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# SOIL CONSERVATION SERVICE NEWS

REGION 4

COMPRISING STATES OF LOUISIANA, ARKANSAS, OKLAHOMA AND TEXAS, EXCEPT HIGH PLAINS AREA

REGIONAL OFFICE-FORT WORTH, TEXAS

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## SURVEY REVEALS THAT CONSERVATION PRACTICES PAY DIVIDENDS TO DUCK CREEK FARMERS

The sixth annual economic survey on 40 cooperating and 20 non-cooperating farms in the Duck Creek Project of the Soil Conservation Service near Lindale, Texas, disclosed that in 1938:

- 1. The cooperators had an average net farm income of \$285 which was 19 times more than the average farm income of \$15 received by the non-cooperators.
- 2. Labor earnings<sup>2</sup> amounted to an average of \$340 on the cooperating farms, or seven times as much as the average of \$47 on the non-cooperating farms.

The range between these comparative figures is the greatest for the two groups of farms since the establishment of soil and water conservation practices was begun on 40 of them in the fall of 1934. At that time all 60 farms were comparable in size and land use, type of farming, crops grown, type of farmer, soil types and erosion, gross farm income and labor earnings.

In 1937, for instance, farm income on the 40 farms averaged \$571 compared with \$253 on the 20 non-cooperating farms. The labor earnings that year averaged \$683 for the cooperators and \$341 for

Farm income is the income from capital and operator's labor (total farm receipts minus total farm expenses, including unpaid labor). It is what the operator gets for his year's work and for the use of the capital invested.

Labor earnings consist of the labor income (labor income being the farm income less 5 per cent interest on the average capital invested) plus farm privileges.

the non-cooperators. The average farm income on 187 farms in the Duck Creek Watershed in 1933 and 1934 was \$268 and \$130, respectively. The average labor earnings on these 187 farms for the same years totaled \$320 and \$339, respectively.

The report of the sixth annual economic survey on these sample cooperating and non-cooperating farms was made by D. H. Taylor on the basis of field work conducted by C. C. Willis and M. L. Gary.

Other salient points brought out in this survey include:

The cooperators, with an average of only 18 per cent more money invested in livestock, sold 74 per cent more livestock than did the non-cooperators during 1938. This indicates the cooperators who formerly had practically the same acreage of pasture as did the non-cooperators are beginning to take advantage of the additional pasture that is being developed in the conservation program. They now have an average of 21.6 acres more pasture than do the non-cooperators.

Surplus of crop products and feed on hand on the cooperating farms was 55 per cent greater than the amounts on the average non-cooperating farm at the close of 1938.

The average per acre lint cotton yield on the cooperating farms was 151.5 pounds; the yield on the non-cooperating farms averaged 150.5 pounds. This similarity in production may have been due to several causes, among them: 1. The cooperators had an average of 16 acres of cotton while the non-cooperators had 12 acrres.

2. The non-cooperators had more cropland from which to choose the land to be devoted to cotton, and, as a result, picked the better land for this, while the cooperators were limited as to acreage of cropland and were following a more or less definite crop rotation.

Corn yielded an average of 11.6 bushels per acre on the conservation treated forms, compared with an average of 8.5 bushels per acre on the non-cooperating farms.

"The acreage of cropland that was actually in crops as compared to idle land is a very significant factor in analyzing the reasons why the cooperators had greater average incomes than did the non-cooperators," the report sets out. "The total farm acreage for each class of farmers was practically the same; averaging 126.2 acres for the cooperators and 126.9 acres for the non-cooperators. The cooperators had 48.3 acres in cropland, of which 41.7 acres were in crops and 7.6 acres were allowed to remain idle. The non-cooperators had an average of 68.2 acres in cropland, of which 25.8 acres were devoted to crop production and 42.4 acres were left idle or 'to rest.'"

The economic value of reorganized land use is illustrated in these reports from cooperating farmers:

One tenant worked 17 acres of cotton and milked 12 common grade milk cows on the shares in 1938. His half of the milk check at the end of the year was \$6.49 more than he received from the cotton crop. Pasture developed from severely eroded and gullied cropland was the means of adding a profitable enterprise to this farm.

Another farmer lacked \$40 of making as much from 51 acres of pasture as he did from 15 acres of cotton. One cooperator had gross receipts from 21 acres of cotton of only \$505, including AAA payments of \$210, while five milk cows on his 60-acre pasture and feed grown on the farm brought in \$241.

Gross receipts of \$145 were received by one farmer from three cows while the total money received from 14 acres of cotton was only \$233.

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#### PROGRESS IN ARKANSAS DISTRICTS

Boards of supervisors of the ten Soil Conservation Districts in Arkansas on April 1 had entered into agreements with 1,317 farmers owning or operating 162,555 acres. These farmers have begun the establishment of complete and coordinated soil and water conservation farming programs with the assistance of the districts.

It was announced that individual plans for 140 other farms, covering 18,807 acres, were being prepared. In addition, farm plans have been completed on 105 farms, covering 17,774 acres, and have been presented to the farmers for signature.

The district supervisors reported conservation surveys have been completed on 1,554,359 acres. The total number of farmers filing applications with their respective boards of supervisors for assistance in installing erosion control and water conservation practices on their farms had increased to 3,435 on the first of the month. The total as of March 1 was 3,279.

A total of 6,130 farmers and others attended 63 educational meetings conducted in the districts in March. Twenty-one meetings were held with groups of farmers in planning and program execution. A total of 380 persons attended these conferences.

#### WILDLIFE MANAGEMENT

Evidence that those interested in practical game production methods recognize the principles of the wildlife management program of the Soil Conservation Service as a means to practical propogation is indicated by the following quotation from the March 1939 issue of North Carolina Wildlife Conservation, official publication of the North Carolina Division of Game and Inland Fisheries:

"Somewhere in North Carolina a well meaning sportsman with good intentions is planning to liberate pen-raised quail on his farm lands. No doubt this individual has visions of excellent shooting for next year. Unfortunately, however, the methods used in this case have in all probability doomed his plans for failure.

"One of the major problems confronting the Division of Game and Inland Fisheries is to give reliable information to landowners.

"Several state game departments have completely abandoned their game farms. For example, the State of Iowa no longer maintains a farm for the artificial propogation of game.

"The trend in the farm game program has constantly been away from the idea of artificial breeding as a means of increasing wild-life. Experiments conducted by individuals, by large preserve owners and by various state game departments indicate that the most successful attack on the problem of wildlife restoration is through planned field management.

"The impracticability of releasing over-fed, domesticated, pen raised game birds on farms with unsuitable habitats has been demonstrated repeatedly.

"The educational work of field biologists carries the idea of field planting directly to the farmers, and it has been found that this personal contact method is very effective.

"Game birds and other wild animals cannot live in unsuitable environmental conditions. At this season when farmers are clearing fields, odd corners with cover and food plants should be left undisturbed. Wild animals naturally move into areas where living conditions are suitable."

Service biologists have maintained that wildlife populations could be increased only by environmental improvements which correct deficiencies in local habitats. As is indicated in the statement quoted above, progressive game departments are becoming convinced that this is true.

Soil conservation work offers a wide-spread opportunity to improve game habitats through the use of vegetation to provide effective erosion control on any farm. This vegetation may be

established as food patches where the food supply is deficient to provide nesting cover where the latter is the limiting factor in the habitat. In either case it serves the primary purpose of controlling erosion while producing a supplementary crop of wildlife.

On most farms much improvement in wildlife conditions will result from simple reversal of the prevalent practices of clearing or burning fence rows, odd corners and other places where natural cover would thrive if protected.

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#### AREAS REALIGNED IN ARKANSAS

A realignment of the area offices of the Soil Conservation Service in Arkansas became effective April 1.

The Coastal Plains Area Office was opened in Little Rock to serve South and East Arkansas, with Frank R. Stanley as area conservationist. The Arkansas Uplands Area Serving North and West Arkansas has headquarters at Russellville, with T. H. Abboud as area conservationist.

The units which are served from the area office in Little Rock are as follows:

Soil Conservation Districts: Lower East Saline, with headquarters at Monticello; Mine Creek, with headquarters at Nashville; Terre Rouge Bodcaw at Hope; Tri-River at Pocahontas; Greene County Crowley Ridge at Paragould; South Crowley Ridge at Forrest City.

Soil Conservation Service projects at Hope, Monticello, and Forrest City.

Soil Conservation Service CCC Camps at Hope, Magnolia, Monticello, Forrest City, Jonesboro, and Pocahontas.

Land Utilization projects at Forrest City, Canden, Marianna, and DeValls Bluff. (Technical assistance only at present.)

The units which are served from the area office at Russell-ville are as follows:

Soil Conservation Districts: East Central Arkansas at Searcy with suboffices at Hober Springs and Jacksonville; Central Valleys at Conway, with suboffices at Morrilton and Danascus; Magazine at Booneville; Poteau River at Waldron; Crooked Creek at Harrison with suboffice at Yellville; Illinois Bayou at Russellville.

Soil Conservation Service projects at Waldron, Conway, Harrison and Bentonville.

Soil Conservation Service CCC Camps at Russellville, Damascus, Heber Springs, Jacksonville, Berryville, and Charlotte.

Land Utilization projects at Eureka Springs, Van Buren, Fayetteville and Paris. (Technical assistance only at present.)

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#### IDLE LAND PUT TO WORK IN OKLAHOMA

Eighty-four acres of abandoned and eroding land, which caused serious damage to 68 acres of good bottom land on the 160-acre Butler farm near Ninnekah, Oklahona, are making a contribution to the farm income again as a result of the conversion of this formerly waste area to pastures and meadows which have controlled erosion, Lee Hart, operator of the farm, reported.

A diversion terrace was constructed to discharge any excess concentration of water through a grass waterway. Contour ridges were constructed to provide further protection. These practices, together with the covering of vegetation established on this land, kept from the lower land the erosional debris which had been damaging the more fertile soil.

"I had to quit farming the upland area three years ago,"
Mr. Hart recalled. "The organic matter was leaving this land rapidly, and the sub-soil was showing up. I did not think too much about the 84 acres of abandoned land as I could see that condition most every place in the country, but when I realized that it was ruining the 68 acres of the creek bottom land, I decided to leave the farm and to try to rent another place. If it had not been for the assistance given me by technicians of the Soil Conservation Service at Chickasha, I would not have been on this place today."

About 20 acres of the 84 are being converted to native grass production either for meadow or, eventually, the harvesting of a cash crop of native grass seed. Six acres have been planted to lespedeza to improve the soil and to provide another source of hay. The remaining 58 acres have been sodded to Bermuda grass. Oats and Sudan grass are grown with the Bermuda grass to provide an early and late pasture.

These erosion control and water conservation practices on the uplands have made possible the growing of 22 acres of alfalfa on the lower land, Mr. Hart continued.

Mr. Hart began operating this farm seven years ago and first received assistance from Soil Conservation Service technicians in 1936 in establishing a complete and coordinated system of conservation on the land.

He said he expected to buy eight to ten Hereford cows to utilize the increased forage for the production of beef cattle.

One acre of severely eroded land has been planted to black locust and catalpa trees for the production of posts which are needed for farm use. These trees are controlling erosion and also providing food and cover for wildlife.

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#### ASSISTANCE GRANTED SIX LOUISIANA DISTRICTS

The Department of Agriculture has entered into memoranda of understanding with the supervisors of six State Soil Conservation Districts in Louisiana.

These districts are: Saline, Upper Sabine, Upper West Red River, D'Arbonne, Dorcheat and Feliciana State Soil Conservation Districts.

These memoranda make it possible for personnel of the Soil Conservation Service to assist farmers within the districts to adopt farming practices designed to control erosion and insure good land use.

Supplemental memoranda have been entered into by the Civilian Conservation Corps and the Dorcheat and D'Arbonne Districts.

The six districts comprise a total of 5,608,281 acres in East Feliciana, West Feliciana, East Baton Rouge, St. Helena, Bossier, Webster, Claiborne, Bienville, Red River, Union, Lincoln, Jackson, Ouachita, Caddo, DeSota, Sabine, Vernon, Natchitoches and Winn Parishes.

The district offices will be located as follows: Saline, at Bienville; Upper Sabine, at Mansfield; Upper West Red River, at Mansfield; D'Arbonne, at Farmerville and suboffices at Berniece and Calhoun; Dorcheat, at Minden and suboffice at Plain Dealing; Feliciana, at Clinton and suboffice at St. Francisville.

The land owners in three other proposed districts were to vote April 8 on the question of organization of Soil Conservation Districts. These areas are Lower East Red River, Calcasieu and Grand Coteau Ridge.

Two previously formed districts are seeking memoranda of understanding with the U. S. Department of Agriculture. They are Pearl River and Dugdemonia State Soil Conservation Districts.

Hearings have been conducted by the Louisiana State Soil Conservation Committee in the proposed Lower West Red State Soil Conservation District.

# PASTURE MAINTENANCE By W. M. Nixon Associate Agronomist

If the farm operator expects to obtain the maximum grass production and the most effective erosion control on his pastures, he should regard them as a crop and give them the same care and attention he devotes to other cash crops.

The farmer who does give his pasture this care and attention and then utilizes the additional forage properly soon adds a new source of income. V. O. Turner, a St. Francis County, Arkansas, farmer living near Forrest City recently declared that his permanent pasture is his "most reliable cash crop." A 70-acre Bermuda grass pasture which has been overseeded with lespedeza and hop clover furnished forage for 75 beef cattle and 150 goats on Turner's farm during seven months in 1938. G. M. Scott of Mount Pleasant, Texas, who converted to pasture 87 acres of eroded land and improved about 100 acres of old pasture, said this work saved him \$150 last year and enabled him to increase his livestock from 125 to 150 animals. The \$150 represented money which Mr. Scott said he had been spending annually to lease nearby pasture to supplement the grazing on his own land. The pasture was sodded to Bermuda grass and overseeded with clovers.

These two examples are representative of what farmers are accomplishing in all states of the region in the development and improvement of pasture.

The regular use of a mowing machine is important to the development and maintenance of good pastures and every effort should be made to encourage farmers to acquire mowers of their own. The development of soil and water conservation programs on farms in the demonstration areas of Region 4 has resulted in a large increase in the number of mowers on cooperating farms.

On many rough, irregular shaped pastures it is impossible to reach all of the weeds with a mover. These weeds should be cut with a scythe, hoe, or pulled by hand inasmuch as a few scattered weeds can reseed an entire pasture.

Grazing should not begin too early in the spring and should not be continued too late in the fall. The average pasture should not be grazed until grasses have reached a height of 3 to 5 inches. Grazing should be regulated so that the legumes and grasses will be given an opportunity to reseed before frost.

It is possible to undergraze as well as overgraze pastures in the Bermuda grass sections. Tall coarse Bermuda grass on undergrazed pastures is not as palatable and nutritious as the grass on pastures that have been properly utilized.

The use of barnyard manure and commercial fertilizer is helpful in securing maximum forage production and should be encouraged. Where only a small amount of manure or fertilizer is available, it is best to concentrate it on a few acres and gradually extend this benefit to additional acres.

Pasture acres properly maintained may become the most profitable on the farm-rand at the same time effectively control erosion.

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#### OKLAHOMA LAND USE PROJECT TRANSFERRED

. The Central Oklahoma land use project west of Stillwater has been transferred for management to the Oklahoma A. and M. College, it was announced this month in Washington.

Under an agreement which has been signed by officials of the college and the U. S. Department of Agriculture, the college is given the use of the 21,000-acre area for a period of 50 years. In return, the college has agreed to utilize the land for the denonstration and promotion of better land use and to maintain all improvements that have been constructed on the property by the Federal government.

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